

December 15, 2015

Engineered Concepts 600-D North Regional Road Greensboro, North Carolina 27410

Attention: Mr. Niels E. Andresen, PE

Reference: Proposal for Geotechnical Exploration Services

Bailey Power Plant Project Winston-Salem, North Carolina

S&ME Proposal No. 13-1500186 Revised

Dear Mr. Andresen, PE:

S&ME, Inc. (S&ME) is pleased to submit this revised proposal for geotechnical exploration services at the above referenced project. The proposal was revised to modify the client to Engineered Concepts and to include site demolition services by Whiting Turner personnel in preparation for the subsurface exploration services. This proposal describes our understanding of the project, discusses the intended scope of services, outlines the project schedule, and presents the associated compensation for our services.

PROJECT INFORMATION

Project information has been obtained from the following:

- Telephone conversations between Meade Willis with Engineered Concepts and Matt Moler with S&ME from March 17 to April 14, 2015.
- A site visit attended by Meade Willis with Engineered Concepts and Matt Moler on April 2, 2015.
- An annotated foundation drawing for the plant depicting proposed excavation locations for existing foundations and seven proposed boring locations (e-mailed by Meade Willis on April 15, 2015).
- Review of a Brownfield Agreement for the project site (dated February 22, 2010).
- A scope of work provided by Armen Armenakyan with FDH Velocitel in an e-mail dated April 13, 2015.
- A site meeting attended by Niels Andreson with Engineered Concepts, Jason Neves with Whiting Turner, Rakesh Khan with FDH Velocitel, and Matt Moler and Mark Hayes with S&ME on December 7, 2015.

S&ME understands the Bailey Power Plant is planned to be renovated for commercial and retail development. The structure is a multi-story building that was once the power plant for the RJ Reynolds tobacco processing facilities. The building is located across an entire city block and is bounded by West 5th Street to the north, Patterson Avenue to the east, 4th Street East to the south, and North Chestnut Street to the west. The building consists of a steel-framed structure bearing on pile supported



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foundations and an interior slab-on-grade. The exterior consists of brick veneer and cast in place concrete. Several masonry stacks are located around the perimeter of the building. A portion of the west side of the structure near some existing stacks is currently condemned and not open for access.

Engineered Concepts is preparing structural design documents associated with the redevelopment of the structure. The majority of the redevelopment will utilize the existing building structure for support of new interior floor levels. New concentrated loading in some areas may require additional foundation support through the use of micropiles. A new single-story restaurant is planned to be constructed in the northeast corner of the existing building.

In the north half of the existing building, we understand foundations consist of 8 to 10-inch diameter steel pipe piles with capacities of 35 tons per pile. Numerous pipe pile foundations are tied together in a central pile cap at each column location. It is anticipated that the piles bear on underlying rock materials. In the south half of the building, construction drawings are not available and the existing foundation support in this area is not known. It is believed the foundations in this area are also driven piles bearing on rock.

To investigate the characteristics of piles supporting the south portion of the building, FDH Velocitel (another consulting firm) is planning to perform non-destructive tests on selected pile supported foundations. The non-destructive tests will consist of parallel seismic testing, which determines the length of the installed piles. Parallel seismic testing involves the installation of parallel boreholes advanced adjacent to and within approximately 15 feet of selected pile foundations. A PVC casing is installed in the borehole, then the annulus around the PVC is grouted while the interior of the pipe is filled with water. The test involves the installation of a hydrophone on the inside of the PVC casing that measures vibrations from impacts to the pile or foundation cap at various depths within the borehole.

S&ME has been requested to perform borings at selected areas of the site to support the planning, design, and renovation of the structure. A total of seven borings have been requested (two for the planned single-story restaurant and five for the existing building exploration). Five of the boreholes will require installation of grouted PVC casing for FDH Velocitel to perform the non-destructive tests on selected pile foundations. Three of the borings are located on the inside of the structure and will require ventilation to facilitate safe drilling within the structure.

We understand the property is designated as a North Carolina Brownfield Project. Known environmental impacts include soil and groundwater contaminants (including diesel-range petroleum hydrocarbons, chromium, lead, thallium, benzene, etc.). Subsurface exploration activities at the site will require conformance with the guidelines provided in the Brownfield agreement.

***** DISCUSSION

S&ME has been requested to perform borings at selected areas of the site to support the planning, design, and renovation of the structure. Based on our experience with subsurface conditions in the Winston-Salem area, we anticipate site subsurface conditions could consist of near-surface existing fill overlying residual soils derived from the weathering of Piedmont parent rock materials overlying partially weathered rock and rock. The depth to rock is variable but is anticipated to be between 40 and 60 feet below existing grade.

Proposal

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Requested boring locations are identified on the attached Exploration Plan. Three of the borings (B-3 through B-5) are located on the interior of the building and four are located on the exterior of the building (B-1, B-2, B-6, and B-7). Anticipated boring depths are provided on the attached Boring Summary Table. Prior to performance of the borings, site underground utilities will need to be identified by a private utility locator. Whiting Turner personnel plan to demolish portions of concrete slabs or pavement materials to expose portions of the existing concrete foundation caps and to provide sufficient drill rig access.

Borings for the single-story restaurant (B-1 and B-2) will be advanced to depths of 15 feet below existing grade or auger refusal. Borings performed for the evaluation of existing pile supported foundations need to extend to auger refusal materials and then at least 10 feet into rock materials using HQ coring equipment. The HQ coring equipment provides an approximate borehole diameter in the rock of 3.75 inches – which is sufficient to install the PVC casing for the parallel seismic testing. Standard Penetration Tests will be performed in all of the borings to obtain samples of the site soils and to determine consistencies of the materials, and groundwater level measurements will be performed after drilling completion.

S&ME will install grouted PVC casing in five of the boreholes (labeled B-3 through B-7) for FDH Velocitel to perform the non-destructive tests on selected pile foundations. The installation will be in general accordance with the scope of work provided by FDH Velocitel.

Exploration locations on the inside of the structure are located in areas with sufficient clear space to use a conventional drill rig (at least 80 feet of overhead clear space). Due to being on the inside of an existing building, S&ME will use fans to ventilate the structure through open bay doors.

As the site is a Brownfield, special handling of the drill spoils and grouting of the boreholes upon completion will be required. S&ME will conduct the site exploration activities using procedures consistent with industry standards and the Brownfield Agreement. As such, on-site personnel will have required certifications and personal protective equipment. All drill spoils and samples will be placed in 55-gallon drums, the exploration locations grouted to prevent migration of contaminants, and tooling steam cleaned between locations. An S&ME professional will be on-site during drilling and sampling to stratify soils and field screen recovered soil samples to measure for the presence of volatile organic compounds (VOCs). The purpose of the field screening is to confirm if contaminants achieve a sufficient concentration that other drilling and sampling protocols (than currently anticipated) will be required. Changes to these procedures will require a written statement by the owner. All soil and rock samples will be stratified in the field and left at the site.

The objective of the exploration is geotechnical, not environmental. However, contaminated soils are anticipated to be encountered.

SCOPE OF SERVICES

S&ME proposes to offer the following scope of geotechnical services for this project:

Prepare a site specific health and safety plan for field services to be performed at the site. The health and safety plan will use assessment data from the Brownfields Agreement to develop site specific personal protective equipment and screening protocols for S&ME field personnel.

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- Contact the NC 811 service to mark the locations of existing underground utilities in the
 proposed exploration areas. NC 811 will not locate utilities on private property; therefore S&ME
 will subcontract a private utility locator to identify private utilities, if any, on the site in proximity
 to the borehole locations. S&ME will not be responsible for damage to unmarked private utilities.
- Coordinate with Whiting Turner personnel to confirm they demolished portions of concrete slabs or pavement materials to expose portions of the existing concrete foundation caps and to provide sufficient drill rig access.
- Provide the North Carolina Brownfields Program with notice of drilling activities at least 7 days prior to drill rig mobilization.
- Mobilize a power drilling rig mounted on a truck or ATV and crew to the site.
- Drill the seven test borings to depths or termination criteria indicated on the attached Boring Summary Table. The total drilling footage anticipated is 330 feet of SPT sampling and 75 feet of rock coring. The borings will include split-barrel soil sampling at 2.5-foot intervals in the upper 10 feet and 5-foot intervals thereafter. The sampler will be driven in general accordance with the Standard Penetration Test procedures (ASTM D 1586-11). Rock coring will be performed using HQ coring equipment. S&ME will steam clean drilling equipment between each boring location.
- Field screen recovered soil samples with a photo-ionization detector (PID) during drilling activities to measure for the presence of volatile organic compounds (VOCs). All site soils and rock obtained from the borings will be drummed and staged on-site for disposal by others.
- Measure water levels in all boreholes upon drilling completion.
- For borings B-3 through B-7, install PVC casing and tremie grout the casings in accordance with the Scope of Work provided by FDH Velocitel. Water will be backfilled within the casing for testing by FDH Velocitel.
- Following testing by FDH Velocitel, S&ME will grout all boreholes full depth with neat bentonite cement.
- Prepare an engineering report summarizing our understanding of the proposed redevelopment, exploration, subsurface conditions, and recommendations. Recommendations will address:
- Excavation and groundwater conditions at the boring locations.
- Shallow foundation support recommendations for the single-story restaurant.
- Design parameters for design of new micropile foundation elements.
- Site preparation and grading recommendations.
- Construction observation and testing recommendations.
- Seismic site class determination.
- Installation records of the parallel seismic boreholes.

NOTE: This proposal is solely intended for the Basic Services as described in the Scope of Services. The Scope of Services may not be materially modified or amended, unless the changes are agreed to in writing by the Client and S&ME. Use of this proposal and corresponding final report is limited to the above-referenced project and client. No other use is authorized by S&ME, Inc.

Excluded Services

Without attempting to provide a complete list of all services or potential services that will be excluded from this proposal and not performed by S&ME, the following services are specifically excluded from this proposal:



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- Parallel seismic testing services or interpretation of the test data (to be performed by FDH Velocitel).
- Laboratory testing of site soil or rock samples.
- Removal of site soil and rock samples from the site (will be drummed at the site and left for others to dispose of).
- Provide water for rock coring or for filling the PVC tubes. We understand Whiting Turner personnel can provide a source of water for S&ME personnel.
- Survey of boring locations or elevations.
- Addenda to the geotechnical report to address changes or additions to the proposed project not known to us at the time of this proposal.
- Construction phase services. The monitoring of construction or testing of construction materials is beyond the proposed scope of geotechnical services.
- Environmental Services (laboratory evaluation of soil and groundwater contaminants or other environmental services).

If any of the above excluded services are required, please contact us so that we can modify this proposal or prepare a proposal for additional services.

Client Responsibilities

The Scope of Services, fee, and project schedule presented herein are contingent upon the client fulfilling the following responsibilities:

- 1. Provide access to the property.
- 2. Provide available information of utilities serving the project site and the presence and accurate locations of hidden or obscure man-made objects relative to field tests or boring locations.
- 3. Coordinate with Whiting Turner personnel to confirm they demolished portions of concrete slabs or pavement materials to expose portions of the existing concrete foundation caps and to provide sufficient drill rig access.
- **4.** Provide water for rock coring or for filling the PVC tubes. We understand Whiting Turner personnel can provide a source of water for S&ME personnel.
- 5. Coordinate with Whiting Turner personnel to confirm that removal and disposal of any containerized soil or rock samples has been performed in accordance with State regulations.

SCHEDULE

We will proceed with the project upon authorization and receipt of signed authorization. We will coordinate with you, FDH Velocitel, and Whiting Turner personnel to coordinate site access, perform site exploration services, and submit our report. We anticipate the field work will likely take 5 to 7 days. Our written report can be provided within 2 weeks after field work completion.

COMPENSATION

We will perform the Basic Services described above in accordance with the unit rates shown on the attached Budget Estimate. The cost is dependent on the subsurface conditions encountered in the borings. We recommend budgeting \$62,000 for this scope of services. If we conclude that additional



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services are necessary based on the subsurface conditions encountered, we will confer with you. We will not proceed with additional services that incur additional costs without your permission.

AUTHORIZATION

S&ME understands the scope of services described above will be performed in accordance with a Standard Agreement provided by Engineered Concepts.

CLOSING

S&ME appreciates the opportunity to be of service to you. If you have questions regarding this proposal, or if we may be of further assistance, please contact us.

Sincerely,

S&ME, Inc.

Matt Moler, P.E.

Senior Engineer/Project Manager

Scott Hancock, P.E.

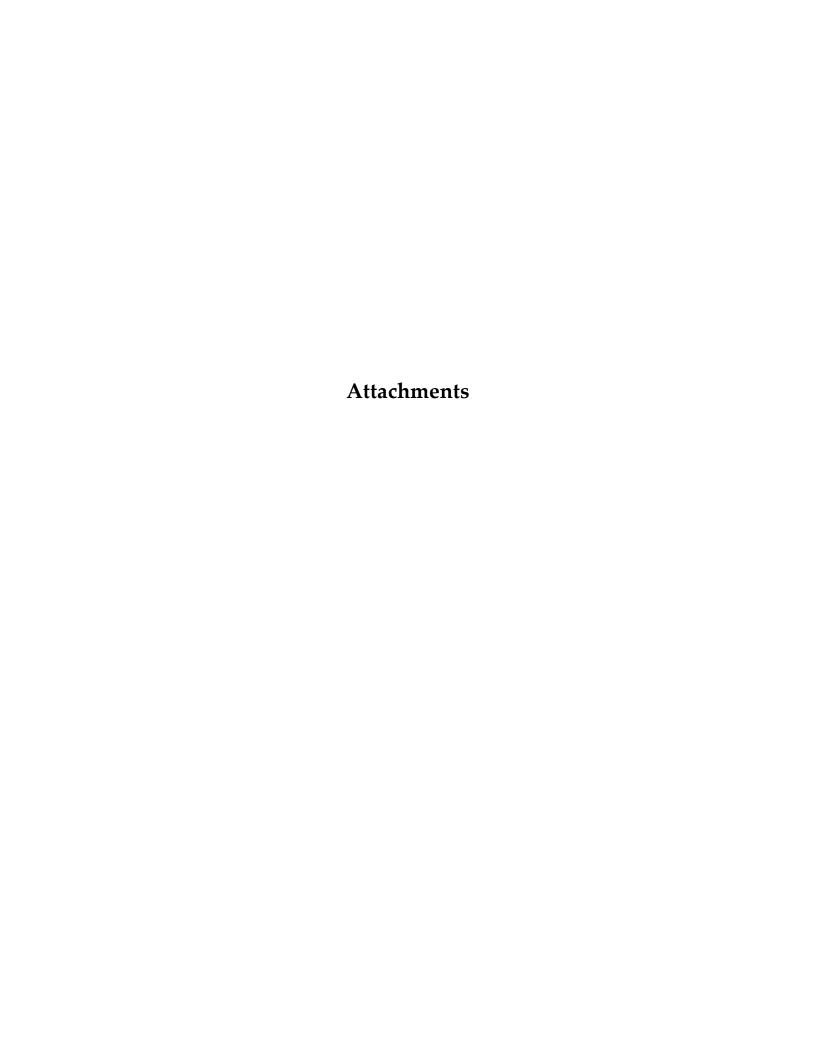
Technical Principal/Vice President

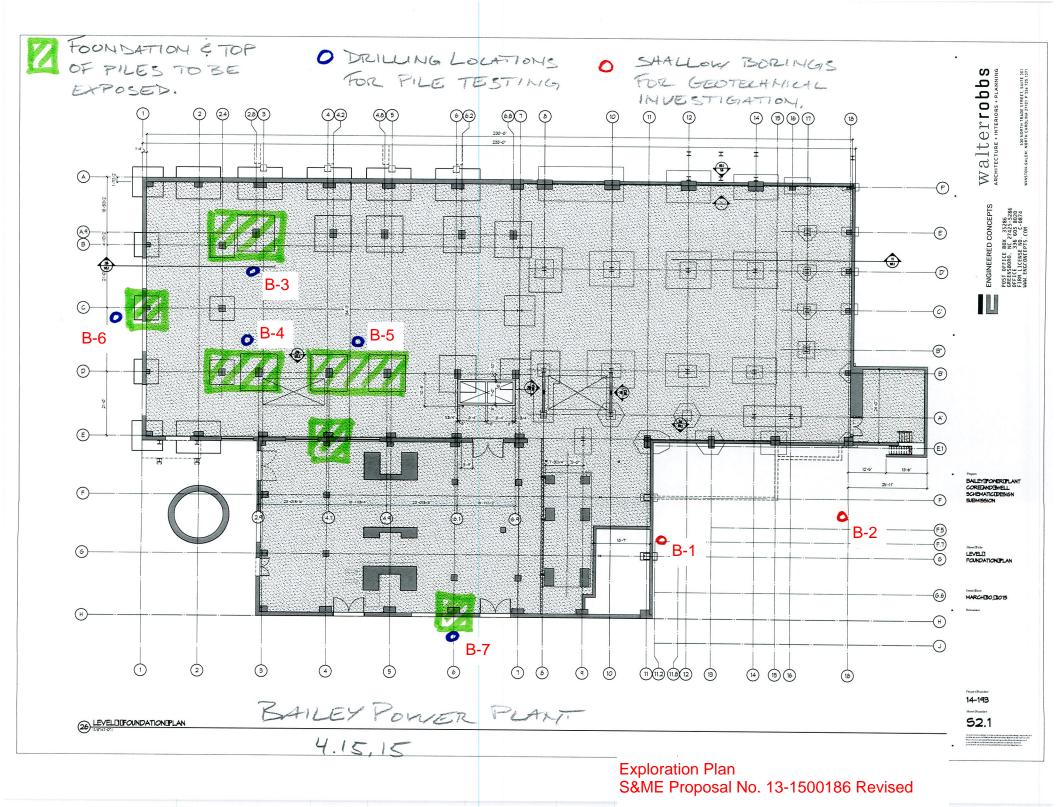
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Attachments: Exploration Plan

Boring Summary Table Budget Estimate

S&ME Certificate of Insurance (For Information Only)







BORING SUMMARY TABLE

Geotechnical Exploration Services

Bailey Power Plant

Winston-Salem, North Carolina

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Boring	Purpose	Planned Boring Depth (ft)		
B-1	Single-Story Restaurant Footprint Borings	Advance Hollow Stem Augers to 15 Feet or Auger Refusal, Whichever is Encountered First. Penetrate		
B-2		Existing Fill (if any).		
B-3				
B-4	B-4 Existing Building Exploration Borings / Parallel Seismic Testing Boreholes B-6 B-7	Advance Hollow Stem Augers to Auger Refusal.		
B-5		Auger Refusal Anticipated at 60 Feet. Core 15 Feet into Refusal Materials. Install Schedule 40 PVC Casing for Parallel Seismic Testing by Others. Grout		
B-6		Boreholes Completely Following Testing.		
B-7				

Notes:

- 1. Borings will require demolition of concrete and/or asphalt at the boring locations to facilitate drill rig access.
- 2. Standard penetration tests will be performed in all borings.



BUDGET ESTIMATE

Geotechnical Exploration Services
Bailey Power Plant
Winston-Salem, North Carolina
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. PREWORK PREPARATION					
 Project Manager (Initial Site Visit, Proposal Coordination/Development) 	15 hours	@ \$	140.00 /hour	\$	2,100.
(Health and Safety Plan preparation)	6 hours	@ \$	140.00 /hour	\$	840.
2. Mileage	100 miles	@ \$	0.60 /mile	\$	60.
2. Wineage	100 miles	ωψ	Subtotal:	. —	3,000
			Subtotal.	Ψ	3,000
. FIELD TESTING					
1. Project Professional					
(utilities, coordination)	8 hours	@ \$	110.00 /hour	\$	880
(on-site monitoring, soil/rock stratification)	70 hours	@ \$	110.00 /hour	\$	7,700
2. PID/FID analyzer	7 days	@ \$	150.00 /day	\$	1,050
3. Subcontract concrete coring			(budgeted)	\$	0
4. Subcontract private utility locating			(budgeted)	\$	1,500
5. Mobilization of Truck or ATV-mounted Drill Rig & Crew			(lump sum)	\$	550
6. Mileage	250 miles	@ \$	0.60 /mile	\$	150
7. Soil Test Borings with SPT Sampling	330 feet	@ \$	15.00 /foot	\$	4,950
8. Rock Core Setup	5 borings	@ \$	250.00 /boring	\$	1,250
9. Rock Core Casing (HQ Casing)	300 feet	@ \$	11.00 /foot	\$	3,300
10. Rock Core (HQ Core Barrel)	75 feet	@ \$	65.00 /foot	\$	4,875
11. Drums for drill soil and rock spoils (2 per boring)	14 drums	@ \$	65.00 /drum	\$	910
12. Drums for rock core water (5 per boring)	25 drums	@ \$	65.00 /drum	\$	1,625
13. Decontamination pit setup			(lump sum)	\$	500
14. Decontamination between borings (30 minutes per boring)	3.5 hours	@ \$	250.00 /hour	\$	875
15. Cuttings containment and drum handling (1 hour per boring)	7 hours	@ \$	250.00 /hour	\$	1,750
16. Rock Core Water Hauling (1 hour per boring)	5 hours	@ \$	250.00 /hour	\$	1,250
17. Steam cleaner and generator	5 days	@ \$	150.00 /day	\$	750
18. Fans for building ventilation	5 days	@ \$	150.00 /day	\$	750
19. 2-Inch ID PVC Schedule 40 Casing (Grouted)	375 feet	@ \$	32.00 /foot	\$	12,000
20. Borehole Grouting (after Parallel Seismic Tests completed)	405 feet	@ \$	8.00 /foot	\$	3,240
			Subtotal:	\$	49,855
. PROFESSIONAL SERVICES					
1. Technical Advisor	10 hours	@ \$	170.00 /hour	\$	1,700
2. Project Manager	25 hours	@ \$	140.00 /hour	\$	3,500
Coordination of Field Activities with Project Professional Coordination with Site Personnel and Project Team Analysis					,
Preparation of Report	25.1	@ ^	110.00 4	φ	2.050
3. Project Professional	35 hours	@ \$	110.00 /hour	\$	3,850
-Log/Profile/Picture Preparation					
-Figure Preparation					
4. CAD Operator	4 hours	@ \$	70.00 /hour	\$	280
5. Administrative	4 hours	@ \$	50.00 /hour	\$	200
			Subtotal:	\$	9,530
			Total:	\$	62,385



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 6/10/2015

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(les) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

Cerunicate noticel in tied of a	such endoisement(s).			
PRODUCER		CONTACT TRACY MEADOWS		
INSURE		PHONE (A/C, No. Ext): (919) 781-1115	FAX (A/C, No): (919) 78	33-6427
2607 GLENWOOD AVENU	JE	E-MAIL ADDRESS: TMEADOWS@INSURE-NC.COM		
PO BOX 31508		INSURER(S) AFFORDING COVERAGE	NAIC#	
RALEIGH	NC 27622	INSURER A :CHARTER OAK FIRE INS CO	1	25615
INSURED		INSURER B:TRAVELERS PROP CAS CO O	F AMER	25674
SEME INC		INSURER C: PHOENIX INS CO	256 <u>23</u>	
3646 W MARKET ST STE 105 GREENSBORO NC 27409		INSURER D:		
		INSURER E :		
		INSURER F:		
COVERAGES	CERTIFICATE NUMBER: Greensbore	o-15/16 REVISION NUM	ABER:	

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS,

EXCLUSIONS AND CONDITIONS OF SUCH POLICIES, LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS. ADDL SUBF LIMITS TYPE OF INSURANCE POLICY NUMBER LTR GENERAL LIABILITY EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) 1,000,000 \$ 1,000,000 X COMMERCIAL GENERAL LIABILITY s 07/01/2015 07/01/2016 10,000 CLAIMS-MADE X OCCUR 630-8287B679 MED EXP (Any one person) A s 1,000,000 PERSONAL & ADV INJURY s 2,000,000 5 GENERAL AGGREGATE 2,000,000 GEN'L AGGREGATE LIMIT APPLIES PER: PRODUCTS - COMP/OP AGG \$ X POLICY PRO-\$ OMBINED SINGLE LIMIT AUTOMOBILE LIABILITY (Ea accident) 1,000,000 BODILY INJURY (Per person) X ANY AUTO B SCHEDULED AUTOS NON-OWNED AUTOS ALL OWNED AUTOS 810-8287B680 07/01/2015 07/01/2016 **BODILY INJURY (Per accident)** \$ PROPERTY DAMAGE (Per accident) \$ HIRED AUTOS \$ Underinsured motorist X UMBRELLA LIAB Х 5,000,000 OCCUR EACH OCCURRENCE \$ 07/01/2015 07/01/2016 **EXCESS LIAB** CUP-8287B692 5,000,000 AGGREGATE \$ CLAIMS-MADE В DED RETENTION \$ WORKERS COMPENSATION X WC STATU-OTH C AND EMPLOYERS' LIABILITY 1,000,000 s ANY PROPRIETOR/PARTNER/EXECUTIVE E.L. EACH ACCIDENT N N/A OFFICER/MEMBER EXCLUDED? (Mandatory in NH) 07/01/2015 07/01/2016 TC2NUB-3980M65-A E.L. DISEASE - EA EMPLOYEE 1,000,000 If yes, describe under DESCRIPTION OF OPERATIONS below E.L. DISEASE - POLICY LIMIT 1,000,000 DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

CERTIFICATE HOLDER	CANCELLATION	
FOR INFORMATION ONLY	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.	
	AUTHORIZED REPRESENTATIVE	